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10/028,906	12/28/2001	Nicholas Paul Kelly	01.103.01	2851

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EXAMINER
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ART UNIT	PAPER NUMBER
2131	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/028,906	KELLY ET AL.
	Examiner	Art Unit	
	Christian La Forgia	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 October 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   The amendment of 13 October 2005 has been noted and made of record.

2.   Claims 1-39 have been presented for examination.

Response to Arguments

3   Applicant's arguments filed 13 October 2005 have been fully considered but they are not

persuasive.

4.   In response to applicant's arguments against the references individually, one cannot show

nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re*

Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

5.   As cited in the previous office action, both Chess and Smithson disclose techniques for

keeping track of files. The previous action also cites the abstract of Smithson as also providing a

teaching of the tracking for a number of times a file is sent for review. It appears that Chess

gives a more in depth discussion of tracking a file as well as keeping a value of one or more

predetermined attributes relating to the file, such as whether the file is safe or questionable as

discussed in column 5, lines 5-48.

6.   Therefore, the combination of references disclose a count value indicating a number of

times that the file has been sent to the computer for review and a value of one or more

predetermined attributes relating to the file.

7.   In response to the Applicant's argument that the combination of references does not

disclose referencing a weighting table to determine the weighting to be associated with the file,

based on the value of said one or more predetermined attributes associated with that file in the

statistical log, the Examiner disagrees. The Applicant is merely arguing the references

individually and not in combination. As discussed above, Chess discloses a technique for

determining the likelihood of a file being infected by the addition or change of code since the last

time the file has been reviewed in at least column 5, lines 5-48, in determining whether the file is

safe or questionable.

8.   Therefore, the combination of references disclose referencing a weighting table to

determine the weighting to be associated with the file, based on the value of said one or more

predetermined attributes associated with that file in the statistical log.

9.   See further rejections that follow.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
> any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

10.   As per claims 1-13, merely claimed as a computer program product representing a

computer listing *per se*, that is, descriptions or expressions of such a program and that is,

descriptive material *per se*, non-functional descriptive material, and is not statutory because it is

not a physical "thing" nor a statutory process, as there are not "acts" being performed. Such

claimed computer programs do not define any structural and functional interrelationships

between the computer program product and other claimed aspects of the invention which permit

the computer program's functionality to be realized. Since a computer program is merely a set

of instructions capable of being executed by a computer, the program itself is not a process,

without the computer-readable medium needed to realize the computer program's functionality.

In contrast, a claimed computer-readable medium encoded with a computer program defines

structural and functional interrelationships between the computer program and the medium

which permit the computer program's functionality to be realized, and is thus statutory.

Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760. **In re Sarkar**, 588 F.2d 1330, 1333, 200

USPQ 132, 137 (CCPA 1978). See MPEP § 2106(IV)(B)(1)(a).

Claim Rejections

11.   The text of those sections of Title 35, U.S. Code not included in this action can be found

in a prior Office action.

12.   Claims 1-2, 7-12, 14-15, 20-25, 27-28 and 33-38 are rejected under 35 U.S.C. 103(a) as

being unpatentable over U.S. Patent No. 6,711,583 to Chess et al., hereinafter Chess, in view of

U.S. Patent No. 6,886,099 to Smithson et al., hereinafter Smithson.

13.   As per claims 1, 14 and 27, Chess discloses a computer program product for operating a

computer to review files for potential malware (column 4, lines 4-10), comprising:

logging code operable to maintain a statistical log having an entry for each file sent to the

computer for review, each entry being arranged to store a count value indicating the number of

times that the file has been sent to the computer for review and a value of one or more

predetermined attributes relating to the file (column 4, line 62 through column 5, line 5, i.e.

maintaining in the database the Nth occurrence of the document being scanned);

statistical log interface code operable, upon receipt of a file, to determine with reference

to the statistical log the count value relating to that file (column 2, lines 44-54, column 5, lines

11-16);

action determination code operable, if the count value determined by the statistical log

interface code exceeds a predetermined threshold (column 6, lines 15-28).

14.   Chess does not disclose a weighting table identifying, for each value of the predetermined attributes, a weighting indicating the likelihood that a file having that value of predetermined attributes will be malware and to reference the weighting table to determine the weighting to be associated with the file in case the count value exceeds the threshold and take actions based on that weight.

15.   Smithson discloses a method for computer virus detection where he discloses a method for detecting computer viruses based on some predetermined criteria such as the count of the file (See Abstract) where he teaches using a weighting table identifying, for each value of predetermined attributes (column 4, lines 50- 62, column 9, lines 21-27), a weighting indicating the likelihood that a file having that value of said one or more predetermined attributes will be malware (column 4, lines 5-20), based on the value of said one or more predetermined attributes associated with that file in the statistical log (column 4, lines 25-40, column 6, lines 35-43), and performing a predetermined actions dependent on the weighting determined by determination code (column 6, lines 34-44 and column 8, lines 13-31).

16.   It would have been obvious to one ordinary skilled in the art at the time the invention was made to modify Chess system with the teachings of Smithson to base actions based on a weighting tables for the files. One would be motivated to do so in order to enable the system to detect unknown viruses, because using such technique is not looking for an individual virus or pattern of execution of a virus, it is able to more readily detect previously unknown viruses by the effect that they have on the activity of the computer system as a whole (Smithson: column 2, lines 10-15).

17.   Regarding claims 2, 15 and 28, Chess wherein said one or more predetermined attributes

comprise an indication of the file type of the file (column 4, lines 24-34).

18.   Regarding claims 7, 20 and 33, Chess discloses wherein if the weighting indicates that

the file is to be treated with caution, said action performing code is operable to perform the steps

of:

        (i) associating a warning message with the file for reference by a person receiving that

file (column 5, lines 39-46, i.e. "questionable" status), and

        (ii) generating for access by an administrator a notification identifying the file (column 6,

lines 54-65).

19.   Regarding claims 8, 21 and 34, Smithson teaches if the weighting indicates that the file is

safe, said action performing code is operable to generate for access by an administrator a

notification identifying the file (column 8, lines 54-60 i.e. notification will be sent to

administrator).

20.   Regarding claims 9, 22 and 35, Chess discloses wherein if it is determined that a file sent

to the computer is not currently entered in the statistical log (Figure 3A [block 301]), the logging

code is further operable to create an entry in the statistical log for the file (column 5, lines 11-20),

in which the value of said one or more predetermined attributes relating to the file are stored, and

in which the count value is initialized (column 5, lines 1-5, column 5, lines 20-29).

21.   Regarding claims 10, 23 and 36, Chess discloses wherein upon receipt of a file, the

statistical log interface code is operable to cause the count value within the relevant entry of the

statistical log to be incremented to account for the current occurrence of the file (column 2, lines

44-51, column 4, line 62 through column 5, line 5).

22.   Regarding claims 11, 24 and 37, Smithson discloses reviewing files included in e-mail

communications (column 3, lines 26-33), and each entry in the statistical log is further arranged

to identify, for each sender of that file, the number of times that that sender has sent the file in

addition to the count value indicating the total number of times that the file has been sent

(column 4, lines 25-40).

23.   Regarding claims 12, 25 and 38, Chess discloses discloses upon receipt of a file, the

statistical log interface code is operable to cause the count value within the relevant entry of the

statistical log to be incremented to account for the current occurrence of the file (column 3, lines

17-23), and the number by which the count value is incremented is dependent on the number of

times that the sender of the current occurrence of the file has previously sent that file (column 5,

lines 1 1-28).

24.   Claims 3-6, 13, 16-19, 26, 29-32 and 39 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Chess in view of Smithson as applied above, and further in view of U.S.

Patent No. 6,401,210 to Templeton, hereinafter Templeton.

25.   Regarding claims 3, 16 and 29, Chess discloses if the weighting indicates that the file is

probably malware, said action performing code is operable to perform the steps of:

        notifying the user of the file (column 6, lines 51-62).

26.   The combination of Chess and Smithson does not disclose encrypting the file such that

only an administrator can decrypt that file.

27.   Templeton discloses a method for managing virus-infected files (See Abstract) where he

teaches detecting a virus in a file encrypting the file in such a way that only the administrator

(system operator) can decrypt that file (column 3, lines 23-27, column 4, line 64 through column

5, line 5).

28.   It would have been obvious to one ordinary skilled in the art at the time the invention was

made to combine the teachings of Chess and Smithson with the teachings of Templeton to

encrypt the file after detecting a virus present in the file in was that only the administrator can

decrypt the file. One would be motivated to do so in order enable the system to safely store files

that have a high probability of being infected and prevent the user from opening the files and

spreading the virus to another files or computers while being able to reproduce the original file

for further analysis or cleaning at later time (column 1, lines 44-54).

29.   Regarding claims 4, 17 and 30, Templeton discloses associating a message with the file

for reference by a person receiving that file, the message identifying that the file has been

encrypted (column 3, lines 61-64, column 4, lines 29-40).

30.   Regarding claims 5, 18 and 31, Chess teaches notifying the user of the file (column 6,

lines 51-62).

31.   The combination of Chess and Smithson does not disclose encrypting the file such that

only an administrator and the originator of the file can decrypt that file.

32.   Templeton discloses a method for managing virus-infected files (See Abstract) where he

teaches upon detecting a virus in a file encrypting the file (column 4, line 64 through column 5,

line 5) in such a way that only the system operator or the owner can decrypt that file

(column 3, lines 23-27, column 3, lines 50-55).

33.   It would have been obvious to one ordinary skilled in the art at the time the invention was

made to combine the teachings of Chess and Smithson with the teachings of Templeton to

encrypt the file after detecting a virus present in the file in was that only the administrator or the

owner can decrypt the file. One would be motivated to do so in order enable the system to safely

store files that have a high probability of being infected and prevent the recipients from opening

the files and spreading the virus to another files or computers while being able to reproduce the

original file for further analysis or cleaning at later time (column 1, lines 44-54).

34.   Regarding claims 6, 19 and 32, Templeton discloses wherein the action performing code

is further operable to associate a message with the file for reference by a person receiving that

file, the message identifying that the file has been encrypted (column 3, lines 61-64, column 4,

lines 29-40).

35.   Regarding claims 13, 26 and 39, Smithson discloses wherein if said action performing code is arranged, dependent on the weighting (column 5, line 65 through column 6, line 3), to quarantine the file or delete it.

36.   The combination of Chess and Smithson does not disclose encrypting the file and an automated decryption code operable, if the file is subsequently determined to be safe, to perform the steps of: locating all encrypted occurrences of that file on a file system, and decrypting each said occurrence.

37.   Templeton discloses a method for managing virus infected files (See Abstract) where he teaches after determining that a file has been infected (column 4, lines 44-45), encrypting that file for later time (column 4, lines 64-67) and when a determination is made that the file is safe to locate the file and decrypt each occurrence of that file (column 5, lines 16-31).

38.   It would have been obvious to one ordinary skilled in the art at the time the invention was made to modify the system to include locating and decrypting files that have been determined to be safe. One would be motivated to do so to enable the user to view and use files that have been analyzed and determined to be free from viruses.

Conclusion

39.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

40.   A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

41.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Christian La Forgia whose telephone number is (571) 272-3792.

The examiner can normally be reached on Monday thru Thursday 7-5.

42.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

43.   Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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